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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/644,031 | 08/22/2000 | James P. Cusey | 20661-00818 | 1287 |

7590

10/05/2004

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EXAMINER

LANIER, BENJAMIN E

ART UNIT

PAPER NUMBER

2132

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/644,031

Applicant(s)

CUSEY ET AL.

Examiner

Benjamin E Lanier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-5, 7, 9-12, 17-24, 27-29, 34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 7, 9-12, 17-24, 27-29 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment of claims 1, 17, 18, 19, 24, 27-29, and cancellation of claims 2, 8, 13-16, 25, 26, 30-33 have been fully considered and are entered.

Response to Arguments

2. Applicant's arguments, see Amendment A, filed 7 July 2004, with respect to the rejection(s) of claim(s) 1-33 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Moseley, U.S. Patent No. 5,193,114.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

-
5. Claim 9 recites the phrase "incorporated into a host device". Claim 9 depends from claim 1 which also discloses a host device. The claim is indefinite because there is no indication that these host devices are the same or if they are different.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Moseley, U.S.

Patent No. 5,193,114. Referring to claim 19, Moseley discloses a smart card authentication system wherein a smart card is enabled for a user to securely access separate accounts in the form of multiple cash accounts and credit card accounts (Abstract, Col. 3, lines 29-35), which meets the limitation of the roaming security device being configured to store a plurality of different service provider data items such that said roaming security device may communicate with a plurality of different service providers and wherein the roaming security device can be authenticated to thereby enable the host device. The system is comprised of the smart cards, which meets the limitation of the roaming security device (Col. 4, lines 47-50), on line card readers (Col. 5, line 67 – Col. 6, line 9 & Fig. 4 (42)), which meets the limitation of a coprocessor security device, and a central site unit (Col. 6, lines 10-18 & Fig. 4 (46)), which meets the limitation of a host device connected to the coprocessor security, the host device configured to communicate with the coprocessor security device and a roaming security device.

Referring to claims 20-23, Moseley discloses that the on line card reader includes a printer (Fig. 2), which meets the limitation of a printer, wherein the coprocessor security device is attached to the printer, and attaching the roaming security device to a printer cartridge.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1, 3-5, 7, 9, 17, 18, 24, 27-29, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moseley, U.S. Patent No. 5,193,114, in view of Pieterse, U.S. Patent No. 5,907,832. Referring to claims 1, 3, 7, 9, 24, 29, 34, Moseley discloses a smart card authentication system wherein a smart card is enabled for a user to securely access separate accounts in the form of multiple cash accounts and credit card accounts (Abstract, Col. 3, lines 29-35), which meets the limitation of the roaming security device being configured to store a plurality of different service provider data items such that said roaming security device may communicate with a plurality of different service providers and wherein the roaming security device can be authenticated to thereby enable the host device. The smart card contains several ~~secret constants stored in the card that are used in a secret function, which meets the limitation of~~ generating a first nonreversible computation result, along with a random number (Abstract), which meets the limitation of a challenge, that includes a seed key for the different service providers (Col. 8, 53-57), which meets the limitation of a third memory portion configured to store a service provider data item, and a card serial number ID (Col. 5, lines 1-3), which meets the limitation of a first memory portion configured to store a device ID. Moseley does not

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disclose that the secret function is a hashing function. Pieterse discloses an electronic debiting system wherein an authenticating hash is created using a random number, which meets the limitation of a challenge, an account balance, which meets the limitation of a device secret, a key and a clock pulse (Col. 5, lines 47-60), which meets the limitation of a counter value and performing a nonreversible computation using the stored device ID, the stored device secret, the stored service provider data item, a challenge, and a counter value as seeds. The generated authenticating hash is transferred to the terminal where a second authenticating hash is calculated and then the hashes are compared for authenticity (Col. 4, lines 54-67), which meets the limitation of outputting to the host the first nonreversible computation result, generating a second nonreversible computation result, and comparing the first and second nonreversible computation result to authenticate the roaming device. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a hash function as the secret function in Moseley in order to provide a method of authenticating the entire transaction process as taught in Pieterse (Col. 3, lines 10-45).

Referring to claims 4, 5, Moseley discloses that the smart card contains a small EPROM to store the various constants (Col. 4, line 51-59), which meets the limitation of the memory portion comprises a nonvolatile and unalterable memory device.

Referring to claims 17, 18, 27, 28, Moseley discloses that the terminal readers are operable or inoperable for the desired transactions based on the authentication procedure (Col. 5, line 7 – Col. 6, line 9).

11. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moseley, U.S. Patent No. 5,193,114, in view of Pieterse, U.S. Patent No. 5,907,832 as applied to claim 1

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above, and further in view of Schneier. Pieterse does not disclose that the hash function is a SHA hash function. Schneier discloses using SHA hash algorithms as a one-way hash function in cryptographic procedures (pgs. 442-445). It would have been obvious to one of ordinary skill in the art at the time the invention was made for the hash function of Pieterse to be a SHA function because Schneier discloses (page 442) that the SHA function is a standard hashing function.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin E Lanier whose telephone number is 703-305-7684.

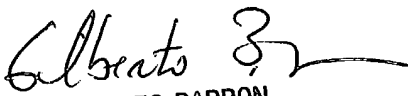
The examiner can normally be reached on M-Th 7:30am-5:00pm, F 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703)305-1830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Benjamin E. Lanier



GILBERTO BARRON
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